Illiterate white inhabitants in southern and border states are most numerous among the mountains. Kentucky has 16 per cent, Tennessee 18, South Carolina 18, and Alabama 18 per cent of illiterate whites.

Baron Benvenuto d'Alessandro, an Italian, has invented a means of checking the force of waves by means of nets made of waterproof hemp. One recently tried with success at Havre was 360 feet long by 50 feet wide, with meshes II inches apart. The nets will break the waves at sea, and will also be a bulwark for hydraulic works against heavy surf.

Amid all the demands of the public purse the Salvation Army has succeeded in making a remarkable collection as a result of its self-denial week. Last year the "week" produced £42,845; this year it has raised £47,181. Scotland increased its subscription by £165, Ireland by £238, while London slums collected £765, as compared with £645 a year ago.

Count E. de Keratry informs the Paris Matin that his grandfather was born in 1698, and his father in 1769, he himself being born in 1832, so that three generations have lived in the seventeenth, eighteenth, nineteenth and twentieth centuries. The Keratry family numbers only twelve generations from 1297 to the present time an average of two generations to a century.

Mr. Edison, who has been partially deaf since childhoood, was recently told by a specialist that an operation might restore his hearing. "Give up," laughed the inventor, "an advantage that enables me to think on undisturbed by noise or conversation? No. indeed!" The exclamation emphasizes in the opinion of the Electrical Review, the strong need, by the thinking part of humanity, of earlids as well as

A bas relief of Clodion, representing fawns, nymphs and cupids at play, has been discovered in a Paris nunnery. The relief was carved for the Princess Louise of Conde, in the eighteenth century, and when she became a nun the figures were covered with plaster. A Prussian cannon ball at the time of the siege of Paris chipped off the plaster, showing the sculpture beneath. A French antiquarian society intends to present It to the Carnavalet Museum though the price asked for it is \$40,000.

A comprehensive plan for the work of the naval war college during the summer months is being considered by the officials of the navy department The plan contemplated entails the discussion of several problems and one of them, of considerable interest, concerns the defense of the Atlantic and Pacific coasts of this country through the use of the Nicaragua canal, which, for the purpose of the problem, is to be supposed to be in existence. Another problem relates to the defense of the coasts with the Straits of Magellan as the connecting link between the Atlantic and Pacific oceans. The third American fieet against a European na tion of superior strength.

Two new uses have been found for the camera, both of which are helps in detecting violations of law. One is the photographing of cases of cruelty to animals, or the results of cruelty This serves a double purpose. A photograph is the best evidence that can be produced in court, and it arouses public sympathy as nothing else, except the scene itself, could do. other application is in making pictures of the smoke nuisance. Many cities have ordinances against the use of soft coal, or restrictions on the time during which it may be used; but violations are frequent. Here again the testimony of a photograph is hard to contradict. The name first given to the hand cameras now so common. seems to have been an appropriate one. They were called "detectives

A weak point in the graded school system is that clever pupils are held back to the general level of the class or dull pupils are "discouraged and crushed" by the advancement of their mates. The board of education in Batavia. New York, seems to have remedied this difficulty by providing larger grade-rooms in which twice the number of children can be assembled under two teachers, one teacher to conduct the classes and the other to give all her time to helping the slower scholars.. "The effect of the change was instantaneous," writes the president of the board, "in putting confidence into the laggards, in making them the equals of their brighter neighbors, in giving an onward move ment to the grades, in relieving the teachers of all strain, and in ending after-school drudgery and home work To attain any one of these results would warrant pretty radical measures.

Fall River easily leads all other cotton manufacturing centres in America, It has about one-fifth of all the cotton spiritles in the United States, and more than twice as many as any other industrial centre in America. It makes \$45,000,000 yards of cloth annually. Every working day its mills weave more than 1,500 miles of cloth. If all the mills could be run on one piece. the fastest express train could not thavel fast enough to carry off the pleas as it is woven, since the product Is more than two miles a minute.

## LOVES THE YOUNG

Practical Reformation in the Metropolis.

New York Letter.

the entire system of our reformatory institutions. Instead of places where hoys live, work and study by rule under strange surroundings, there will be a collection of private homes, or families, where the charges will be surrounded by the comforts and enjoyments of home life and trained in the duties which tend to make competent men and good citizens.

About six years ago David A. Willard started a school for boy criminals in the Tombs, the famous New York prison. Each morning within the prison walls he talks with his pupils on subjects referring to practical educational matters. He never refers to their misdeeds, but seeks to divert their minds to more wholesome matters. In this way he gives the boys new interests in life, encouragement for the future and gains their affection and confidece. The boys know him as a school teacher-one in no way interested in the criminal cases agains, them,

Visits the Tombs After Mr. Willard meets the boys in the Tombs, he learns from the officials what the charges are against them. In cases of first offense and where the boys show any promise for the future, he induces the presiding judges to suspend sentences and turn the boys over to him. He makes an agreement to become responsible for the boys and reports upon their conduct to the judges at regular intervals. When he first began his work he found some turn the boys over to him. Justice Jerome was the first to give the scheme a trial. Now all the judges of the Court of Special Sessions have adopted the plan.

Now the unique and interesting feat-

his home. During the past five years The practical work of a young New he has helped about 3,000 youths in Yorker may in time radically change one way or another and once or twice a year these report to him.

The success of Mr. Willard's re markable work is proven by the fact that out of the hundreds of boys who have been placed in his charge only 10 have failed to realize his expectations. Had he not saved them from the disgrace of an early prison life it is probable that the great majority of them would now be well started on a criminal career.

SMALL COLLEGES BEST.

Writer Says Large Institutions Pro-

vide Less Variety. Why it is better, on some accounts, to send a boy to a small college rather than to a large one is set forth by Herbert W. Horwill in the Atlantic, He says: "The smallest college includes men who have come from different schools, who live in different counties, who hold different religious opinions, who are of different grades in society, and who anticipate very different careers in later life. It is in the mingling of these diverse elements that the social intercourse of a college operates most healthly. \* \* \* No outside associates will contribute to a man's education more of what is fresh and unfamiliar than will meet him dally on his own staircase. A small college puts upon him the compulsion of this broadening social intercourse. A large college, on the other hand, from its very size provides less variety; it is impossible for difficulty in persuading the judges to all the men to know one another, and they assort themselves accordingly into cliques, along the lines of some sectional interest. As a social organism, the small college is distinctly to be preferred to its larger rival. The personality of the teachers has a much ure of the plan develops. What does greater opportunity for wholesome in-



DAVID A. WILLARD.

Mr. Willard do with the boys when | fluence. Every member of the staff they are placed in his care by the may become directly acquainted with magistrate? He has a large, siry, each student in the college. The size prettily furnished house on Chrystie of the institution not only allows and those whose parents are too poor and undergraduates, but directly into properly care for them, are taken vites it. Further, it is possible for the to this home which, of course, appears like a palace to them. There is the social advantages of academic life nothing like an institution about the without splitting up into cliques or Everything is homelike and the boys are made to feel that they are at home. Each boy has his own neat and cozy bedroom.

Where Boys May Read.

There is a library, sitting room and gymnasium in the house. The boys do as they please, read, play games and exercise in the gymnasium. Quickly they acquire habits of neatness and courtesy of manner, Mr. Willard seems to have absolute power over them, but they do not fear him. They freely laugh, joke and talk with him and delight to be in his company. He has arrangements by which they take their meals at nearby restaurants and each boy is taught to be punctual at each of his three daily repasts.. Those boys who have good homes are taken to them by Mr. Willard and are required to report to him every day or two. The boys who are under 14 are required to attend the public schools and must report their attendance and acts to Mr. Willard. The ones above school age are instructed to find positions and Mr. Willard devotes much of his time in helping them to secure employment. Each evening for the first few months they report to him and he instructs them to be faithful and energetic in their work. He also has a number of clubs and classes which he u-rects and instructs.

Protecting Honest Boys. Besides the young culprits there are many honest boys who make Mr. Willard's house their home when out of employment. There are dozens of boys in the neighborhood who come to his cluis and classes. At present there are about 130 boys out on probation, who live in their own homes and report to him regularly every day or so. Sel-

The boys who have no homes friendly intercourse between tutors undergraduates themselves to enjoy all creating artificial associations. college itself is the true fraternity."

Dictetica in Fever.

"We make much better progress at the bedside of the fever patient by keeping before the eye, as the only object worth striving for, the warding off of inanition, than we should by a random search after dishes that 'will do the patient good,' guided by unclear and ungrounded prejudice," says Prof. Carl von Noorden in the International Monthly; "The condition of the digestive organs may in special cases, as in typhold fever, lay us under certain restrictions, but otherwise every variety of food must, in fever cases, be looked upon as useful and welcome, if thereby we can reach the goal of the fever dietetics, and prevent inanition and the initial loss of fut and protoplasm. With some fever patients, we get along better, and do them more good with pea soup, sauerkraut and roast pork than with the finest calves-foot jelly and the tenderest breast of chick-The old dogratists in dietetics, whose footing was rather natural philosophy than the facts of the pathology of metabolism, would have been horrified if they could have known what a vast variety of dishes we allow our fever patients nowadays.

Defended Freedom of Thought-

Though dean of the Paris faculty of Protestant theology, the late Auguste Sabatier constantly wielded his pen in Le Temps in defense of freedom of thought. He lived sixty-two years. His best works are on the sources of the life of Christ and a philosophy of religion.

The best part of the Kimberly dom are there less than 15 boys in diamond field covers nine acres only

BROTHER-IN-LAW OF BRITAIN'S MONARCH

To Search the Waters of a Scottish Loch for Riches Which Sank with One of the Vessels of the Spanish Armads.

(London Letter.)

The search being instituted by the Duke of Argyll, son-in-law of the late Queen Victoria, for the treasure contained on a vessel of the historical Spanish Armada, which was defeated and in great measure destroyed in 1588 while attempting an invasion of England, recalls the story of that disastrous expedition-one of the worst naval failures in all history.

The particular ship containing the treasure which the Duke of Argyll is seeking was the Admiral of Florence, and beneath the waters of Loch Duan the hulk of that vessel is now rotting. Its exact location is well defined. Over 100 years ago one of the duke's ances tors made an attempt to recover the rich treasure known to have sunk with the vessel and a diver actually succeeded in bringing to the surface some of the old bronze cannon with which the ship was fitted. But at this juncture the British government interposed. According to the ancient laws of Great Britain all treasure so recovered belonged to the crown and the duke's ancestor being a sensible man naturally abandoned the project. Loyal subject as he was he saw no reason for spending his own money in order that the crown, always sufficiently enriched, should be made richer and so the vessel and its treasure were left the prey of the waves.

Now, however, owing to the fact that the Duke of Argyll is married to the Princess Louise, sister of King Edward, the present government will offer no objection to the duke's search for the treasure and all the gold, silver and precious stones recovered will become the property of the king's brother-in-law.

Story of the Armada. The Admiral of Florence was one of 120 vessels which King Philip II, of Spain, sent out for the invasion and conquest of England. This naval armament, mighty for its time, is historically known as the armada. Its vessels had a total tonnage of 75,868 tons and carried 2,431 guns. They were manned with 8,456 sailors and carried over 19,000 soldiers. Nor was this the full strength of the expedition, destined for the invasion of



LORD HOWARD OF EFFINGHAM. Who commanded the British fleet opposed to the Spanish admiral,

England, for the fleet was under royal orders to proceed to the Flemish coast, where another army of 34,000 men under the Duke of Parma was to join it, the whole force then proceeding to England.

But the expedition was ill-starred from the start. Before it was ready to set out its commander, Admiral Santa-Croce, died, as did the vice admiral. Paliano, and the command was then conferred upon the Duke of Medina Sidonia, a man utterly inexperienced in naval affairs.

While this mighty expedition was being fitted out, the English government was not idle. The nation ral-Hed around their Queen, Elizabeth, and a strong though still inferior fleet was placed in readiness to meet the Spanlards. The British fleet numbered 180 vessels of all kinds, many of them privateers, and these were manned by 17.500 men. Lord Howard of Effing. ham was to supreme command and under him served Drake, Hawkins and Frobisher, the most renowned men in Europe. The fleet was divided into two squadrons, one to guard the channel, the other to co-operate with the Flemish and prevent the Duke of Parma from joining the Spanish flo-

The Armada's Tragic End. On May 29, 1588, the Spanish fleet

set out from Lisbon for Corunna to take on a supply of stores. The vessels encountered a terrific storm and eighty-two of the vessels were sunk. Finally the remnants of the Spanish expedition got under way and on July 31 appeared off Plymouth. The British fleet put out in its rear and opened a destructive fire, and having the wind in its favor was able to inflict considerable damage without sustaining any loss in return. All the way along the channel the English pursued the armada with the same tactics, capturing two or three vessels and yet keeping out of reach. The English vessels were easier handled, better manned, and better served and the advantage of the fighting remained on their side. teution of the Duke of Medina Sido- 64 feet a second.

LONG-LOST TREASURE | nia being to await the coming out of the Duae of Parma's fleet from the Flemish harbors. But the Duke of Parms was blockaded by the Anglo-Flemish squadron and could render no assistance. Meantime the English drove the Spaniards out of Calais roads and engaged them in a battle that lasted all day. The Spaniards, driven to the coast of Zealand, held a council of war and finding that their fleet was badly damaged and their ammunition running low, decided on returning to Spain for repairs. They selected the route around the Orkney islands, the winds being contrary to their p-ssage through the English While carrying out this arrangement a terrific storm arose and the fleet was dispersed. Some 20 vessels were wrecked on the coast of Ireland, Others sank to the bottom of the sea. It is estimated that 14,000 perished with the wrecked vessels. the proud armada, which set out with such great designs, only about 32 yessels, and these in wretched condition, found their way back to Spain.

HUNTING RATTLERS.

A Novel Industry to Southwestern

Texas. The establishment of a large factory for the manufacture of snake oil in Texas about a year ago has led to the development of a new industry in the state. There are probably 100 men in southwest Texas who are devoting their whole time to snake hunting. One of them, Captain Mack Arnold, seldom falls to capture from five to ten rattlers each day he puts in at the work. The anakes bring 25 cents a pound gross at the factory and each snake weighs from four to six pounds. Before removing his camp to the vicinity of Austin Captain Arnold and his Mexican assistant spent three moths in Blanco county, where they had wonderful success in capturing rattlesnakes. During that period they captured and shipped to the factory 1,540 rattlesnakes. At one point on the Blanco river Captain Arnold found a den of 37 rattlesnakes all of which he and the Mexican succeeded in taking alive. They would not have succeeded in doing this had not the weather been cold and the rattlers been in a semi-comatose state. The snakes are caught by means of a loop at the end of a stick. It is Captain Arnold's opinion that the snake-hunting business will afford those who have nerve enough to engage in it a good livelihood for many years to come. The fact that a market has been found for rattleanake oil will cause the demand for the snakes to keep up. Should a scarcity of rattlers ever occur on the ranches it is predicted that some enterprising man will start a farm for the special purpose of raising the reptiles for market. Many thousands of live snakes are received every month by the snake oil factory. They are sent in alive and killed as needed. The flesh is used to make oil, while the skin is

A Heroine in Humble Life. Remarkable fortitude in suffering as well as an unusual degree of consideration for the welfare of others marked the conduct of Mrs. Julia Bender, who came near burning to death in her apartment in New York one night, a few weeks ago, Mrs. Bender was alone ing a birthday cake as a surprise for her little girl. On the cake she placed the appropriate number of candles. One of these she lighted to see how it would look. An unlucky jolt sent the candle against her dress and in an instant she was ablaze from head to foot, but she did not scream. She tore her clothing off and then fainted. A tenant in a neighboring apartment heard the suffering woman groun and went to her assistance. When asked why she had not shouted for help, Mrs. Bender said: "I wanted to, but like a flash I thought of the sick woman across the hall. She is dying and we have all been told that we must be very still. I remembered all so that I knew if I opened my mouth at all I would shrick, so I gritted my teeth and tried to put the fire out myself." A surgeon came and he pronuonced her injuries

tanned and manufactured into a va-

riety of small articles, including neck

tles for men.

Rural England Resents the Motor. In England the automobile has not yet emerged from the period of thinlyveiled toleration. So far as cities and towns are concerned, people have become accustomed to the whizzing cars. but there are many country districts where the appearance of Daimier or Decauville would excite more curiosity and speculation than a traveling men agerle. The "works" are mysteriously concealed, and bystanders are ignorant for the most part that the petroleum motor now seen in many streets is, after all, only a slight variant of the ordinary gas engine of commerce. Many people apparently resent the appearance of a motor, on the ground that it is a challenge to the methods of locomotion with which they are familiar, and which have so far suited their requirements tolerably well.-London Telegraph.

mortal.-Leslie's Weekly.

Registering Eurthquake Waves The earthquake waves due to the Japanese shock of June 15, 1896, were recorded on the self-registering tide ganges at Honolulu and at Saucelito the bay of San Francisco. Dr Charles Davison has recently compared the calculated velocity of the earthquake waves with the velocity formerly calculated from the usual for mula. He found that at Saucelito, for example, the first crest of the waves reached the tidal gauge 10 hours and The Spaniards held toward the coast 34 minutes after the shock, having of Planders and finally anchors were traversed in this time the distance of dropped off the port of Calsis, the in- 4,787 miles at an average velocity of

Dire Feverty to London. The London Lancet says there musi be in that city some 500,000 persons who cannot afford to pay a sufficiently

high rent to secure healthy houses. Peace in the Philippines.

Peace in the Philippines is bound to prove profitable to all concerned. Warring conditions, whether they be in the Philippines or in the human stomach, are equally disastrous. If your stomach has rehelled, there is one authority that will quickly subdue it. It is Hestetier's Stomach Bitters, and it cures constipation, indigestion, billcumess, netwousness and dyspessia. See that a private revenue stamp covers the neck of the bottle.

Since there's nothing new under the sun it is strange that new shoes have to be broken in. Pence in the Philippines.

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